





Agenda

- Introductions
- Description of Project
 - What Enterprise Service was implemented
 - At what level were they consolidated
- Implementation Methodology
- Results
- Best Practices
- Lessons Learned
 - Things we didn't anticipate
 - Policy changes needed for success
- Cost Drivers



Description of Project

Overall IBM Scope





IBM has pursued the full scope of the Enterprise IT Services being considered by the Air Force.

- Discovery
- Mediation
- Enterprise Storage
- Functional Application Hosting
- Enterprise ServicesManagement

- Collaboration
- Messaging
- Security/Information Assurance
- User Assistance Services

All services are being implemented globally across the entire enterprise.

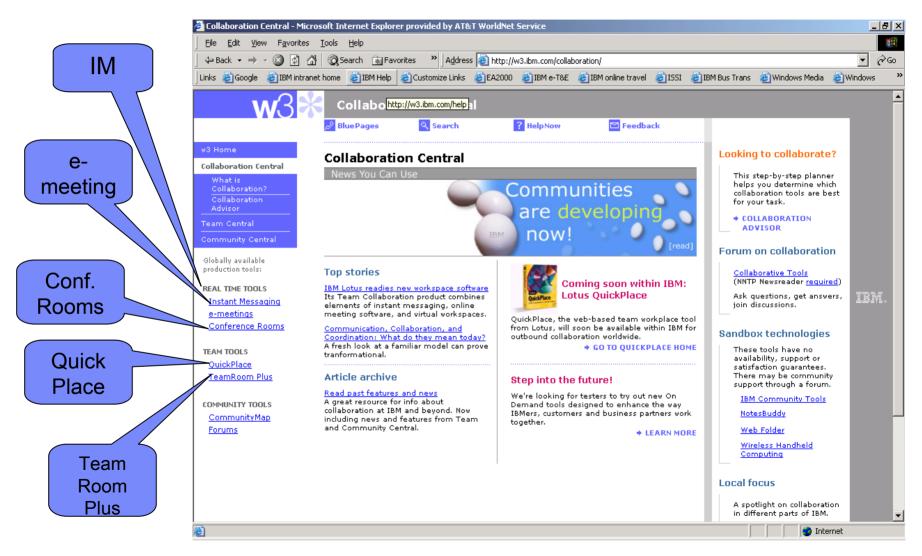


Description of Project





Collaborative Tool Portal





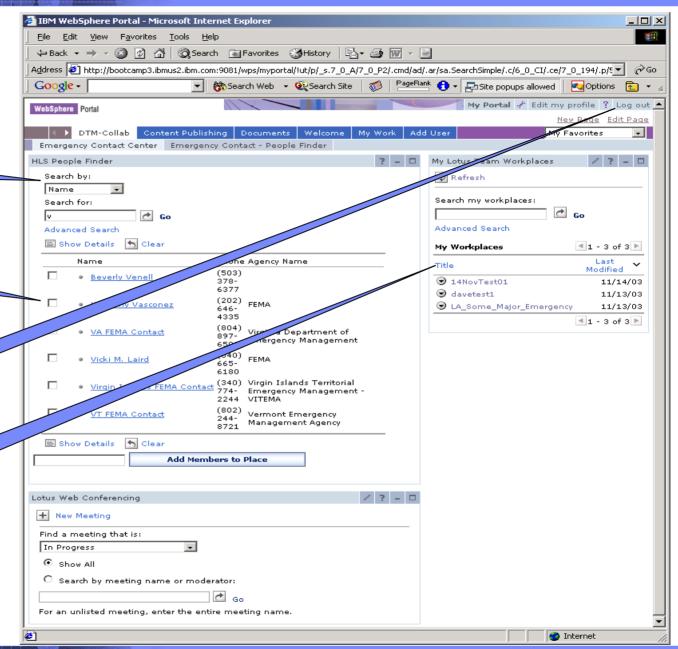
Collaborative Tool Portal

Locate

Invite

Authenticate

Collaborate





Inclusion of Audio & Video over IP requires QoS from the Network.

- Without QoS guaranteeing the delivery of packets in order:
 - Audio can be garbled
 - Video can be garbled
 - Encrypted feeds can be lost in their entirety
- IBM has developed an integrated e-meeting capability that uses a traditional audio conference bridge to conduct high-quality e-meetings with audio.







Collaboration applications were piloted at large scale and rapidly rolled out to IBM's 330,000 employees.

Initial IM pilot supported 66,000 users to validate scalability.

Tivoli used to monitor memory, CPU, and disk utilization.



Results





Collaboration tools grabbed end user interest and saved millions of dollars in foregone travel and faster execution.

- IM use from 2000 IBM locations currently experiences
 - peak traffic of 100,000 concurrent users
 - 225,000 users/day
 - 2.5 million messages/day



Best Practices





IBM's governance model underlies our ability to deliver a technical solution that sets the bar for best practices

- Governance model incents Lines of Business (MAJCOMs) and Functional Areas (FAMs) to work together to establish consistent requirements
- Transformation executives given enough scope to "horse trade"
- Consistent, robust, LDAP directory established across the enterprise
- Investment in proselytizing anticipated from the start



Lessons Learned



Things we didn't anticipate

Collaboration is addictive

 Heavy initial promotion is necessary to change organizational behavior

Policy changes necessary

Governance

- Overcome institutional rigidity
- Establish service levels
- Establish trust broker
- Robust LDAP is critical
- Avoid separate, but parallel environments;
 - It is difficult to keep them in synch



Cost Drivers





Most of the costs of collaboration are usage driven

Technical

- Video is the most expensive service to provide
 - Large bandwidth requirements
 - QoS is critical
 - Specialized equipment is needed
- Audio has similar cost drivers to video, but the requirements are consistently smaller
- Storage costs per user are small, but add up to big dollars.



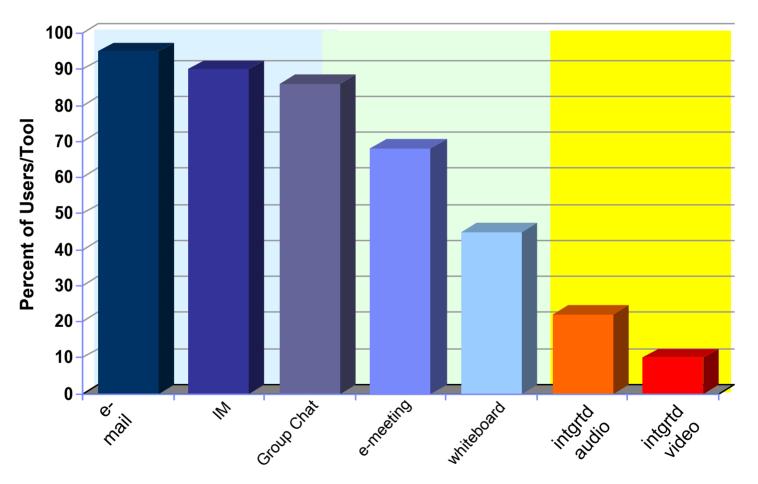
Additional organizational investments are required beyond those necessary to implement the technical solution

Organizational

- Governance structure needs to be implemented and effective
- Cross-services issues need to be included in systems engineering
 - Directory services
 - Security
 - ESM
- A functional architecture is needed to provide and integrative context for each service



Currently, the most costly Collaboration tools have the smallest number of users



Collaboration Tools